

1. (Cancelled)

2. (Currently Amended) A substituted amine according to claim 148 |

where R_1 is:

$[-(\text{CH}_2)_{0-1}-(\text{R}_{1-\text{aryl}})]-(\text{CH}_2)_{0-1}\text{-phenyl}$, wherein the phenyl group is optionally substituted with 1 or 2 groups that are F, Cl, Br, $\text{C}_1\text{-C}_4$ alkoxy, CF_3 , $\text{C}_1\text{-C}_6$ alkyl optionally substituted with one or two substituents selected from the group consisting of $\text{C}_1\text{-C}_3$ alkyl, -F, -Cl, -Br, -OH, -C \equiv N, - CF_3 , $\text{C}_1\text{-C}_3$ alkoxy, and - $\text{NR}_{1-\text{a}}\text{R}_{1-\text{b}}$ where $\text{R}_{1-\text{a}}$ and $\text{R}_{1-\text{b}}$ -H or $\text{C}_1\text{-C}_4$ alkyl,

where R_N is:

$\text{R}_{N-1}\text{-X}_N$ where X_N is selected from the group consisting of:

-CO-, and

-SO₂-,

where R_{N-1} is $-\text{R}_N\text{-aryl}$;

where R_A is:

- $\text{C}_1\text{-C}_8$ alkyl,

-(CH_2)₀₋₃-($\text{C}_3\text{-C}_7$) cycloalkyl,

-($\text{CR}_{A-x}\text{R}_{A-y}$)₀₋₄- $\text{R}_A\text{-aryl}$,

-cyclopentyl or -cyclohexyl ring fused to $\text{R}_A\text{-aryl}$,

or

-C=OR₇, where R_7 is

$C_1 - C_6$ alkyl,
 phenyl,
~~thioalkoxyalkyl,~~
~~(aryl)alkyl,~~ phenylalkyl,
 cycloalkyl,
 cycloalkylalkyl,
 hydroxyalkyl,
 alkoxyalkyl,
~~aryloxyalkyl,~~ phenyloxyalkyl
 haloalkyl,
 carboxyalkyl,

where X is -N or -O, with the proviso that when X is O, R_B is absent; and when X is N,

R_B is:

~~$C_1 - C_8$ alkyl,~~ $C_1 - C_6$ alkyl.
 ~~$(CH_2)_{0-3} - (C_3 - C_7)$ cycloalkyl~~
 ~~$(CR_A - xR_{A-y})_{0-4} - R_{A-aryl}$~~
~~cyclopentyl or cyclohexyl ring fused to R_{A-aryl}~~

3. (Currently Amended) A substituted amine according to claim 2

where R_1 is:

~~$(CH_2) - (R_{1-aryl})$~~ benzyl, wherein the phenyl portion is
optionally substituted with 1 or 2 groups that are F, Cl, $C_1 - C_4$
alkoxy, CF_3 , $C_1 - C_4$ alkyl optionally substituted with one

substituent selected from the group consisting of C₁-C₃ alkyl,
-F, -Cl, -Br, -OH, -C≡N, -CF₃, C₁-C₃ alkoxy, and -NR_{1-a}R_{1-b} where R₁₋
a and R_{1-b} -H or C₁-C₄ alkyl,

where R₂ is -H;

where R₃ is -H;

where R_N is:

R_{N-1}-X_N- where X_N is:

-CO-,

where R_{N-1} is ~~R_{N-aryl}~~ phenyl, substituted with one, two
or three of the following substituents which can be
the same or different and are C₁-C₄ alkyl, optionally
substituted with one or two substituents selected from
the group consisting of C₁-C₃ alkyl, -F, -Cl, -Br, -I,
-OH, -SH, -C≡N, -CF₃, C₁-C₃ alkoxy, and -NR_{1-a}R_{1-b}, -OH, -
NO₂, -F, -Cl, -Br, or -I, -CO-OH, -C≡N, -(CH₂)₀₋₄-CO-NR_{N-}
2R_{N-3}, -(CH₂)₀₋₄-SO₂-NR_{N-2}R_{N-3}, -(CH₂)₀₋₄-SO-(C₁-C₆ alkyl), -
(CH₂)₀₋₄-SO₂-(C₁-C₆ alkyl), -(CH₂)₀₋₄-SO₂-(C₃-C₇
cycloalkyl), -(CH₂)₀₋₄-O-(C₁-C₆ alkyl optionally
substituted with one, two, three, four, or five -F),
C₃-C₇ cycloalkyl, or -(CH₂)₀₋₄- C₃-C₇ cycloalkyl, where
R_{N-2} and R_{N-3} are the same or different and are selected

from the group consisting of H, and -C₁-C₆ alkyl
optionally substituted with one substituent
selected from -OH, and -NH₂, -C₁-C₆ alkyl

optionally substituted with one to three -F, -Cl, -Br, or -I, -C₃-C₇ cycloalkyl, -(C₁-C₂ alkyl)-(C₃-C₇ cycloalkyl), and -(C₁-C₄ alkyl)-O-(C₁-C₃ alkyl);

where R_A is:

-C₁-C₈ alkyl,
-(CH₂)₀₋₃-(C₃-C₇) cycloalkyl,
-(CR_{A-x}R_{A-y})₀₋₄-R_{A-aryl},
-cyclopentyl or -cyclohexyl ring fused to R_{A-aryl},
-cyclopentyl or -cyclohexyl ring fused to R_{A-aryl},
-C=OR₇, where R₇ is

C₁ - C₆ alkyl,
~~(aryl)alkyl, phenylalkyl,~~
cycloalkyl,
cycloalkylalkyl,
hydroxyalkyl,
alkoxyalkyl, or
haloalkyl,

where X is -N or -O, with the proviso that when X is O, R_B is absent;

and when X is N, and

R_B is:

~~-C₁-C₈ alkyl,~~ H or -C₁-C₆ alkyl.

~~-(CH₂)₀₋₃-(C₃-C₇) cycloalkyl,~~

~~-(CR_{B-x}R_{B-y})₀₋₄-R_{B-aryl},~~

~~-cyclopentyl or -cyclohexyl ring fused to R_{B-aryl}.~~

4. (Currently Amended) A substituted amine according to claim 3, where R_A is: $-(CR_{A-x}R_{A-y})_{0-4}-R_{A-aryl}$, -cyclopentyl or -cyclohexyl ring fused to R_{A-aryl} , or $-C=OR_7$, where

R_{A-aryl} is phenyl, 1-naphthyl, or 2-naphthyl, substituted with one, two or three of the following substituents which can be the same or different and are C_1-C_4 alkyl, optionally substituted with one or two substituents selected from the group consisting of C_1-C_3 alkyl, -F, -Cl, -Br, -I, -OH, -SH, $-C\equiv N$, $-CF_3$, C_1-C_3 alkoxy, and $-NR_{1-a}R_{1-b}$, -OH, $-NO_2$, -F, -Cl, -Br, or -I, $-CO-OH$, $-C\equiv N$, $-(CH_2)_{0-4}-CO-NR_{N-2}R_{N-3}$, $-(CH_2)_{0-4}-SO_2-NR_{N-2}R_{N-3}$, $-(CH_2)_{0-4}-SO-(C_1-C_6 \text{ alkyl})$, $-(CH_2)_{0-4}-SO_2-(C_1-C_6 \text{ alkyl})$, $-(CH_2)_{0-4}-SO_2-(C_3-C_7 \text{ cycloalkyl})$, $-(CH_2)_{0-4}-O-(C_1-C_6 \text{ alkyl})$ optionally substituted with one, two, three, four, or five -F), C_3-C_7 cycloalkyl, or $-(CH_2)_{0-4}-C_3-C_7 \text{ cycloalkyl}$, where R_{N-2} and R_{N-3} are the same or different and are selected from the group consisting of H, and $-C_1-C_6 \text{ alkyl}$ optionally substituted with one substituent selected from -OH, and $-NH_2$, $-C_1-C_6 \text{ alkyl}$ optionally substituted with one to three -F, -Cl, -Br, or -I, $-C_3-C_7 \text{ cycloalkyl}$, $-(C_1-C_2 \text{ alkyl})-(C_3-C_7 \text{ cycloalkyl})$, and $-(C_1-C_4 \text{ alkyl})-O-(C_1-C_3 \text{ alkyl})$;

R_7 is $C_1 - C_6$ alkyl, cycloalkyl, cycloalkylalkyl,
alkoxyalkyl, or haloalkyl,

R_{A-x} and R_{A-y} are -H, C_1-C_4 alkyl optionally substituted with
one or two -OH, C_1-C_4 alkoxy optionally substituted
with one, two, or three -F, or phenyl;

where R_B is H or C_1-C_4 alkyl.

~~where R_B is:~~

~~$(CR_{B-x}R_{B-y})_{0-4}R_{B-aryl}$, or~~

~~_____ cyclopentyl or cyclohexyl ring fused to R_{B-aryl} .~~

5. (Currently Amended) A substituted amine according to
claim 4, claim 148 where R_1 is benzyl substituted with 2
halogens.

~~$(CH_2)(R_{1-aryl})$ where R_{1-aryl} is phenyl.~~

6. (Currently Amended) A substituted amine according to
claim 5 148 where R_1 is benzyl substituted with 2 fluorines.

~~$(CH_2)(R_{1-aryl})$ where R_{1-aryl} is phenyl substituted with two
-F.~~

7. (Currently Amended) A substituted amine according to
claim 6 where ~~the -F substitution~~ R_1 is 3,5-difluorobenzyl.

8. (Cancelled)

9. (Cancelled)

8 10. (Currently Amended) A substituted amine according to claim 5 148 where R_N is $R_{N-1}-X_N$ where X_N is CO , where R_{N-1} is R_{N-aryl} where R_{N-aryl} is phenyl -C(O)-phenyl, wherein the phenyl is substituted with one $-CO-NR_{N-2}R_{N-3}$ where the substitution on phenyl is 1,3.

9 11. (Currently Amended) A substituted amine according to claim 10⁸ where R_{N-2} and R_{N-3} are independently H or C_1-C_6 alkyl.
~~the same and are C_3 alkyl.~~

10 12. (Currently Amended) A substituted amine according to claim 5 148 where R_N is -C(O)-phenyl, wherein the

~~$R_{N-1}-X_N$ where X_N is CO , where R_{N-1} is R_{N-aryl} where R_{N-aryl} is phenyl is substituted with one C_1 -alkyl methyl group and with one $-CO-NR_{N-2}R_{N-3}$ where the substitution on the phenyl is 1,3,5.~~

11 13. (Currently Amended) A substituted amine according to claim 12¹⁰ where R_{N-2} and R_{N-3} are independently H or C_1-C_6 alkyl.
~~the same and are C_3 alkyl.~~

14-15. (Cancelled)

¹²
16. (Currently Amended) A substituted amine according to either claim ⁸~~10~~ or ¹⁰~~12~~ 148 where R_A is:

- (CR_{A-x}R_{A-y})₀₋₄-R_{A-aryl} where R_{A-aryl} is phenyl, which is optionally substituted with one or two substituents selected from the group consisting of C₁-C₃ alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C≡N, -CF₃, C₁-C₃ alkoxy, and -NR_{1-a}R_{1-b}; and wherein the phenyl is optionally fused to a cyclopentyl or cyclohexyl ring; ~~-cyclopentyl or cyclohexyl ring fused to a R_{A-aryl}; and~~ R_{A-x} and R_{A-y}, if present, are both H.

¹³
¹²
17. (Currently Amended) A substituted amine according to claim ~~16~~ where R_A is phenyl. ~~-(CR_{A-x}R_{A-y})₀₋₄-R_{A-aryl} where R_{A-aryl} is phenyl.~~

¹⁴
18. (Currently Amended) A substituted amine according to ~~claim 17~~ claim ¹²~~16~~ where phenyl is mono-substituted in at the 3-position or disubstituted at the 3,5-positions.

19-20. (Cancelled)

¹⁵
21. (Original) A substituted amine according to claim ¹²~~16~~ where R_A is: -cyclohexyl ring fused to a phenyl ring.

¹⁶
22. (Currently Amended) A substituted amine according to ¹³~~claim 148~~ claim ~~17~~, where R_B is H or C₁-C₄ alkyl. ~~R_B is:~~

~~(C_{R_B}-xR_{B-y})₀₋₄-R_{B-aryl} where R_{B-aryl} is phenyl,~~

~~cyclopentyl or cyclohexyl ring fused to a R_{B-aryl}.~~

¹⁷
~~23.~~ (Currently Amended) A substituted amine according to
¹⁶
claim ~~22~~ where R_B is H. is: ~~(C_{R_B}-xR_{B-y})₀₋₄-R_{B-aryl} where R_{B-aryl} is
phenyl,~~

¹⁸
~~24.~~ (Currently Amended) A substituted amine according to
¹⁶
claim ~~22~~ ~~claim 23~~ where R_B is methyl. ~~phenyl is substituted in
the 3 position or 3,5 positions.~~

25-26. (Cancelled)

~~27.~~ (Cancelled)

¹⁹
~~28.~~ (Currently Amended) A substituted amine according to
claim ~~148~~, where X is oxygen and R_B is absent.

²⁰
~~29.~~ (Previously Presented) A substituted amine according
to claim ~~148~~ chosen from the group consisting of:

N-[1-(3,5-Difluoro-benzyl)-2-hydroxy-3-(N'-methyl-N'-
phenyl-hydrazino)-propyl]-5-methyl-N',N'-dipropyl-
isophthalamide,

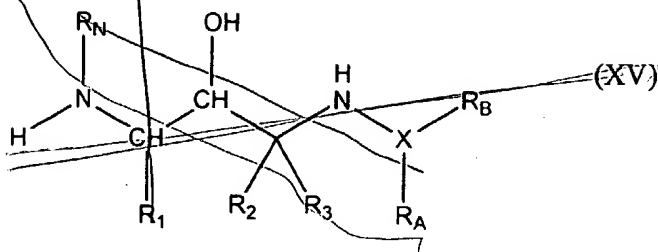
N-{1-(3,5-Difluoro-benzyl)-2-hydroxy-3-[N'-methyl-N'-(4-methyl-pentanoyl)-hydrazino]-propyl}-5-methyl-N',N'-dipropyl-isophthalamide, and

N-[1-(3,5-Difluoro-benzyl)-2-hydroxy-3-phenoxyamino-propyl]-5-methyl-N',N'-dipropyl-isophthalamide.

21
~~30~~. (Previously Presented) A substituted amine according to claim ~~148~~ where the pharmaceutically acceptable salt is selected from the group consisting of salts of the following acids acetic, aspartic, benzenesulfonic, benzoic, bicarbonic, bisulfuric, bitartaric, butyric, calcium edetate, camsylic, carbonic, chlorobenzoic, citric, edetic, edisylic, estolic, esyl, esylic, formic, fumaric, gluceptic, gluconic, glutamic, glycollylarsanilic, hexamic, hexylresorcinoic, hydrabamic, hydrobromic, hydrochloric, hydroiodic, hydroxynaphthoic, isethionic, lactic, lactobionic, maleic, malic, malonic, mandelic, methanesulfonic, methylnitric, methylsulfuric, mucic, muconic, napsylic, nitric, oxalic, p-nitromethanesulfonic, pamoic, pantothenic, phosphoric, monohydrogen phosphoric, dihydrogen phosphoric, phthalic, polygalactouronic, propionic, salicylic, stearic, succinic, sulfamic, sulfanilic, sulfonic, sulfuric, tannic, tartaric, teoclic and toluenesulfonic.

31-143. (Cancelled)

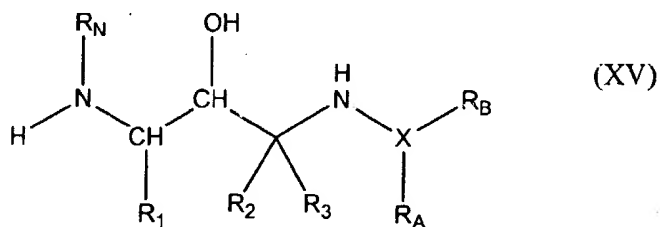
22
 144. (Previously Presented) A composition comprising a compound of ~~formula XV~~



where ~~R₁, R₂, R₃, R_N, R_A, R_B, and X are as defined in claim 148;~~
 and an inert diluent or edible carrier.

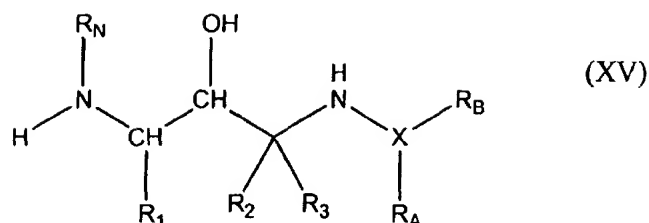
23 22
 145. (Original) The composition of claim 144, where said carrier is an oil.

24
 146. (Previously Presented) A composition comprising a compound of formula XV



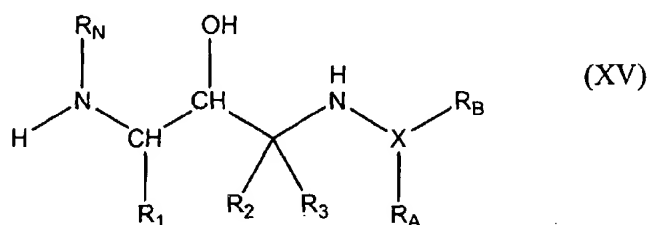
where R₁, R₂, R₃, R_N, R_A, R_B, and X are as defined in claim 148;
 and an binder, excipient, disintegrating agent, lubricant, or gildant.

25
 147. (Previously Presented) A composition comprising a compound of formula XV



where R_1 , R_2 , R_3 , R_N , R_A , R_B , and X are as defined in claim ~~148~~, disposed in a cream, ointment, or patch.

~~148~~. (Currently Amended) A substituted amine of formula (XV)



or a salt thereof, where R_1 is $-(\text{CH}_2)_{n_1}-(\text{R}_{1-\text{aryl}})$ where n_1 is zero or one and where $\text{R}_{1-\text{aryl}}$ is phenyl, optionally substituted with one, two, or three, ~~or four~~ of the following substituents ~~on the aryl ring:~~

(A) $\text{C}_1\text{-C}_6$ alkyl optionally substituted with one, two or three substituents selected from the group consisting of $\text{C}_1\text{-C}_3$ alkyl, $-\text{F}$, $-\text{Cl}$, $-\text{Br}$, $-\text{I}$, $-\text{OH}$, $-\text{SH}$, $-\text{C}\equiv\text{N}$, $-\text{CF}_3$, $\text{C}_1\text{-C}_3$ alkoxy, and $-\text{NR}_{1-a}\text{R}_{1-b}$ where R_{1-a} and R_{1-b} $-\text{H}$ or $\text{C}_1\text{-C}_6$ alkyl,

~~(B) $\text{C}_2\text{-C}_6$ alkenyl with one or two double bonds, optionally substituted with one, two or three substituents selected from the group consisting of F , Cl , OH , SH , $\text{C}\equiv\text{N}$,~~

~~-CF₃, C₁-C₃ alkoxy, and NR_{1-a}R_{1-b} where R_{1-a} and R_{1-b} are H or C₁-C₆ alkyl,~~

~~(C) C₂-C₆ alkynyl with one or two triple bonds, optionally substituted with one, two or three substituents selected from the group consisting of F, Cl, OH, SH, C≡N, -CF₃, C₁-C₃ alkoxy, and NR_{1-a}R_{1-b} where R_{1-a} and R_{1-b} are H or C₁-C₆ alkyl,~~

(D) -F, Cl, -Br or -I,

(F) -C₁-C₆ alkoxy optionally substituted with one, two, or three of: -F,

(G) -NR_{N-2}R_{N-3} where R_{N-2} and R_{N-3} are as defined below,

(H) -OH,

(I) -C≡N,

~~(J) C₃-C₇ cycloalkyl, optionally substituted with one, two or three substituents selected from the group consisting of F, Cl, OH, SH, C≡N, -CF₃, C₁-C₃ alkoxy, and NR_{1-a}R_{1-b} where R_{1-a} and R_{1-b} are H or C₁-C₆ alkyl,~~

(K) -CO-(C₁-C₄ alkyl),

~~(L) SO₂-NR_{1-a}R_{1-b} where R_{1-a} and R_{1-b} are as defined above,~~

~~(M) CO-NR_{1-a}R_{1-b} where R_{1-a} and R_{1-b} are as defined above, or~~

~~_____ (N) -SO₂-(C₁-C₄ alkyl),~~

where R₂ is:

~~[(I)]-H, or C₁-C₃ alkyl;~~

~~(II) C₁-C₃ alkyl, optionally substituted with one, two or three substituents selected from the group consisting of C₁-C₃ alkyl, F, Cl, Br, I, OH, SH, C≡N, CF₃, C₁-C₃ alkoxy, and NR_{1-a}R_{1-b} where R_{1-a} and R_{1-b} are as defined above,~~

where R₃ is:

~~[(I)]-H, or C₁-C₃ alkyl;~~

~~(II) C₁-C₃ alkyl, optionally substituted with one, two or three substituents selected from the group consisting of C₁-C₃ alkyl, F, Cl, Br, I, OH, SH, C≡N, CF₃, C₁-C₃ alkoxy, and NR_{1-a}R_{1-b} where R_{1-a} and R_{1-b} are as defined above,~~

where R_N is R_{N-1}-X_N where X_N is selected from the group consisting of:

(A) -CO-,

(B) -SO₂-,

(C) -(CR'R'')₁₋₆ where R' and R'' are the same or different and are -H or C₁-C₄ alkyl,

(E) a single bond;

where R_{N-1} is R_{N-aryl} where R_{N-aryl} is phenyl, 1-naphthyl, or 2-naphthyl, ~~tetralinyl, indanyl, dihydronaphthyl or 6,7,8,9-tetrahydro 5H benzo[a]cycloheptenyl, or dihydronaphthyl~~ each of

which is optionally substituted with one, two or three of the following substituents which can be the same or different and are:

(1) C_1-C_6 alkyl, optionally substituted with one, two or three substituents selected from the group consisting of C_1-C_3 alkyl, -F, -Cl, -Br, -I, -OH, -SH, $-C\equiv N$, $-CF_3$, C_1-C_3 alkoxy, and $-NR_{1-a}R_{1-b}$ where R_{1-a} and R_{1-b} are as defined above,

(2) -OH,

(3) $-NO_2$,

(4) -F, -Cl, -Br, or -I,

(5) $-CO-OH$,

(6) $-C\equiv N$,

(7) $-(CH_2)_{0-4}-CO-NR_{N-2}R_{N-3}$ where R_{N-2} and R_{N-3} are the same or different and are selected from the group consisting of:

(a) -H,

(b) $-C_1-C_6$ alkyl optionally substituted with one substituent selected from the group consisting of:

(i) -OH, and

(ii) $-NH_2$,

(c) $-C_1-C_6$ alkyl optionally substituted with one to three -F, -Cl, -Br, or -I,

(d) $-C_3-C_7$ cycloalkyl,

(e) - (C₁-C₂ alkyl) - (C₃-C₇ cycloalkyl),

(f) - (C₁-C₆ alkyl) - O - (C₁-C₃ alkyl),

~~(g) - C₂-C₆ alkenyl with one or two double bonds,~~

~~_____ (h) - C₂-C₆ alkynyl with one or two triple bonds,~~

~~_____ (i) - C₁-C₆ alkyl chain with one double bond and one triple bond,~~

~~_____ (j) - R₁ aryl where R₁ aryl is as defined above, and~~

~~_____ (k) - R₁ heteroaryl where R₁ heteroaryl is as defined above,~~

(8) - (CH₂)₀₋₄ - CO - (C₁-C₁₂ alkyl),

~~(9) - (CH₂)₀₋₄ - CO - (C₂-C₁₂ alkenyl) with one, two or three double bonds,~~

~~_____ (10) - (CH₂)₀₋₄ - CO - (C₂-C₁₂ alkynyl) with one, two or three triple bonds,~~

(11) - (CH₂)₀₋₄ - CO - (C₃-C₇ cycloalkyl),

~~_____ (12) - (CH₂)₀₋₄ - CO - R₁ aryl where R₁ aryl is as defined above,~~

~~_____ (13) - (CH₂)₀₋₄ - CO - R₁ heteroaryl where R₁ heteroaryl is as defined above,~~

~~_____ (14) - (CH₂)₀₋₄ - CO - R₁ heterocycle where R₁ heterocycle is as defined above,~~

(15) - (CH₂)₀₋₄-CO-R_{N-4} where R_{N-4} is selected from the group consisting of morpholinyl, thiomorpholinyl, piperazinyl, piperidinyl, homomorpholinyl, homothiomorpholinyl, homothiomorpholinyl S-oxide, homothiomorpholinyl S,S-dioxide, pyrrolinyl and pyrrolidinyl where each group is optionally substituted with one, two, three, or four of C₁-C₆ alkyl,

(16) - (CH₂)₀₋₄-CO-O-R_{N-5} where R_{N-5} is selected from the group consisting of:

(a) C₁-C₆ alkyl,

(b) - (CH₂)₀₋₂-(R_{1-aryl}) where R_{1-aryl} is as defined above,

~~(c) C₂-C₆ alkenyl containing one or two double bonds,~~

~~(d) C₂-C₆ alkynyl containing one or two triple bonds,~~

(e) C₃-C₇ cycloalkyl, and

~~(f) (CH₂)₀₋₂-(R_{1-heteroaryl}) where R_{1-heteroaryl} is as defined above,~~

~~(17) (CH₂)₀₋₄-SO₂-NR_{N-2}R_{N-3} where R_{N-2} and R_{N-3} are as defined above,~~

~~(18) (CH₂)₀₋₄-SO-(C₁-C₈ alkyl),~~

~~(19) (CH₂)₀₋₄-SO₂-(C₁-C₁₂ alkyl),~~

~~(20) (CH₂)₀₋₄-SO₂-(C₃-C₇ cycloalkyl),~~

(21) - (CH₂)₀₋₄-N(H or R_{N-5})-CO-O-R_{N-5} where R_{N-5} can be the same or different and is as defined above,

~~(22) - (CH₂)₀₋₄-N(H or R_{N-5})-CO-N(R_{N-5})₂, where R_{N-5} can be the same or different and is as defined above,~~

~~(23) - (CH₂)₀₋₄-N-CS-N(R_{N-5})₂, where R_{N-5} can be the same or different and is as defined above,~~

(24) - (CH₂)₀₋₄-N(-H or R_{N-5})-CO-R_{N-2} where R_{N-5} and R_{N-2} can be the same or different and are as defined above,

(25) - (CH₂)₀₋₄-NR_{N-2}R_{N-3} where R_{N-2} and R_{N-3} can be the same or different and are as defined above,

(26) - (CH₂)₀₋₄-R_{N-4} where R_{N-4} is as defined above,

(27) - (CH₂)₀₋₄-O-CO-(C₁-C₆ alkyl),

~~(28) - (CH₂)₀₋₄-O-P(O)-(OR_{N-aryl-1})₂ where R_{N-aryl-1} is H or C₁-C₄ alkyl,~~

(29) - (CH₂)₀₋₄-O-CO-N(R_{N-5})₂ where R_{N-5} is as defined above,

~~(30) - (CH₂)₀₋₄-O-CS-N(R_{N-5})₂ where R_{N-5} is as defined above,~~

(31) - (CH₂)₀₋₄-O-(R_{N-5})₂ where R_{N-5} is as defined above,

~~(32) - (CH₂)₀₋₄-O-(R_{N-5})₂-COOH where R_{N-5} is as defined above,~~

~~(33) - (CH₂)₀₋₄-S-(R_{N-5})₂ where R_{N-5} is as defined above,~~

(34) $-(CH_2)_{0-4}-O-(C_1-C_6 \text{ alkyl optionally substituted with one, two, three, four, or five } -F),$

(35) $C_3-C_7 \text{ cycloalkyl},$

~~(36) $C_2-C_6 \text{ alkenyl with one or two double bonds optionally substituted with } C_1-C_3 \text{ alkyl, } -F, -Cl, -Br, -I, -OH, -SH, -C\equiv N, -CF_3, C_1-C_3 \text{ alkoxy, or } -NR_{1-a}R_{1-b} \text{ where } R_{1-a} \text{ and } R_{1-b} \text{ are as defined above,}$~~

~~(37) $C_2-C_6 \text{ alkynyl with one or two triple bonds optionally substituted with } C_1-C_3 \text{ alkyl, } -F, -Cl, -Br, -I, -OH, -SH, -C\equiv N, -CF_3, C_1-C_3 \text{ alkoxy, or } -NR_{1-a}R_{1-b} \text{ where } R_{1-a} \text{ and } R_{1-b} \text{ are as defined above,}$~~

~~(38) $(CH_2)_{0-4}-N(-H \text{ or } R_{N-5})-SO_2-R_{N-2} \text{ where } R_{N-5} \text{ and } R_{N-2} \text{ can be the same or different and are as described above, or}$~~

(39) $-(CH_2)_{0-4}-C_3-C_7 \text{ cycloalkyl},$

where R_A is:

(I) $-C_1-C_{10} \text{ alkyl optionally substituted with one, two or three substituents selected from the group consisting of } C_1-C_3 \text{ alkyl, } -F, -Cl, -Br, -I, -OH, -SH, -C\equiv N, -CF_3, C_1-C_6 \text{ alkoxy, } -O\text{-phenyl, } -NR_{1-a}R_{1-b} \text{ where } R_{1-a} \text{ and } R_{1-b} \text{ are as defined above, } -OC=O NR_{1-a}R_{1-b} \text{ where } R_{1-a} \text{ and } R_{1-b} \text{ are as defined above, } -S(=O)_{0-2} R_{1-a} \text{ where } R_{1-a} \text{ is as defined above, } -NR_{1-a}C=O NR_{1-a}R_{1-b} \text{ where } R_{1-a} \text{ and } R_{1-b} \text{ are as defined above, } -C=O NR_{1-a}R_{1-b} \text{ where } R_{1-a} \text{ and } R_{1-b} \text{ are as defined above,}$

defined above, and $-S(=O)_2 NR_{1-a}R_{1-b}$ where R_{1-a} and R_{1-b} are as defined above,

~~(II) $-(CH_2)_{0-3}-(C_3-C_8)$ cycloalkyl where cycloalkyl can be optionally substituted with one, two or three substituents selected from the group consisting of C_1-C_3 alkyl, F, Cl, Br, I, OH, SH, C=N, CF_3 , C_1-C_6 alkoxy, O phenyl, CO OH, CO O (C_1-C_4) alkyl, and $NR_{1-a}R_{1-b}$ where R_{1-a} and R_{1-b} are as defined above,~~

(III) $-(CR_{A-x}R_{A-y})_{0-4}-R_{A-aryl}$ where R_{A-x} and R_{A-y} are

(A) -H,

(B) C_1-C_4 alkyl optionally substituted with one or two -OH,

(C) C_1-C_4 alkoxy optionally substituted with one, two, or three of: -F,

(D) $-(CH_2)_{0-4}-C_3-C_7$ cycloalkyl,

(E) C_2-C_6 alkenyl containing one or two double bonds,

(F) C_2-C_6 alkynyl containing one or two triple bonds,

(G) phenyl,

~~and where R_{A-x} and R_{A-y} are taken together with the carbon to which they are attached to form a carbocycle of three, four, five, six, or seven carbon atoms, optionally where one carbon atom is replaced by a heteroatom selected from the group~~

~~consisting of O, S, SO₂, and NR_{N-2} and R_{A-aryl} is the same as R_{N-aryl}~~

(IV) -cyclopentyl, -cyclohexyl, or -cycloheptyl ring fused to R_{A-aryl}, where R_{A-aryl} is as defined above where one carbon of cyclopentyl, cyclohexyl, or -cycloheptyl is optionally replaced with NH, NR_{N-5}, O, or S(=O)₀₋₂, and where cyclopentyl, cyclohexyl, or -cycloheptyl can be optionally substituted with one or two -C₁-C₃ alkyl, -F, -OH, -SH, -C≡N, -CF₃, C₁-C₆ alkoxy, =O, or -NR_{1-a}R_{1-b} where R_{1-a} and R_{1-b} are as defined above,

~~(V) CH(CH₂OH)CH(OH)phenylNO₂~~

(VI) -H,

(VII)

~~C=OC(HR₆)NHR₇, where R₆ and R₇ are as defined~~

below

~~-C=OR₇, where R₇ is as defined below, or~~

~~-C=OOR₇, where R₇ is as defined below, or~~

~~SOOR₇, where R₇ is as defined below,~~

wherein R₆ is:

~~hydrogen~~

~~C₁-C₃ alkyl,~~

~~phenyl,~~

~~thioalkoxyalkyl,~~

~~alkyl substituted aryl,~~

~~cycloalkyl,~~

~~cycloalkylalkyl,~~
~~hydroxyalkyl,~~
~~alkoxyalkyl,~~
~~aryloxyalkyl,~~
~~haloalkyl,~~
~~carboxyalkyl,~~
~~alkoxycarbonylalkyl~~
~~aminoalkyl,~~
~~(N-protected)aminoalkyl,~~
~~alkylaminoalkyl,~~
~~((N-protected)(alkyl)amino)alkyl~~
~~dialkylaminoalkyl,~~
~~guanidinoalkyl,~~
~~lower alkenyl,~~
~~heterocyclic,~~
~~(heterocyclic)alkyl,~~
~~arylthioalkyl,~~
~~arylsulfonylalkyl,~~
~~(heterocyclic)thioalkyl,~~
~~(heterocyclic)sulfonylalkyl,~~
~~(heterocyclic)oxyalkyl,~~
~~arylalkoxyalkyl,~~
~~arylthioalkoxyalkyl,~~
~~arylalkylsulfonylalkyl,~~
~~(heterocyclic)alkoxyalkyl,~~

~~(heterocyclic)thioalkoxyalkyl,~~
~~(heterocyclic)alkylsulfonylalkyl,~~
~~cycloalkoxyalkyl,~~
~~cycloalkylthioalkyl,~~
~~cycloalkylsulfonylalkyl,~~
~~cycloalkylalkoxyalkyl,~~
~~cycloalkylthioalkoxyalkyl,~~
~~cycloalkylalkylsulfonylalkyl,~~
~~aminocarbonyl,~~
~~alkylaminocarbonyl,~~
~~dialkylaminocarbonyl,~~
~~aroylalkyl,~~
~~(heterocyclic)carbonylalkyl,~~
~~polyhydroxyalkyl,~~
~~aminocarbonylalkyl,~~
~~alkylaminocarbonylalkyl,~~
~~dialkylaminocarbonylalkyl,~~
~~aryloxyalkyl, or~~
~~alkylsulfonylalkyl,~~
~~wherein heterocyclic is pyridyl,~~
~~thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, furanyl, thienyl,~~
~~tetrahydrofuranyl, tetrahydrothienyl and tetrahydro[2H]pyranyl~~
~~and wherein the heterocycle is unsubstituted or substituted with~~
~~one to three substituents independently selected from hydroxy,~~
~~halo, amino, alkylamino, dialkylamino, alkoxy, polyalkoxy,~~

~~haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, arylalkyl, COOH,~~
~~SO₃H, lower alkenyl or lower alkyl,~~

wherein R₇ is:

C₁ - C₆ alkyl,

phenyl,

~~thioalkoxyalkyl,~~

(aryl)alkyl,

cycloalkyl,

cycloalkylalkyl,

hydroxyalkyl,

alkoxyalkyl,

aryloxyalkyl,

haloalkyl,

carboxyalkyl,

alkoxycarbonylalkyl,

aminoalkyl,

~~(N-protected)aminoalkyl,~~

alkylaminoalkyl,

~~-(N-protected)(alkyl)amino)alkyl,~~

dialkylaminoalkyl,

~~guanidinoalkyl,~~

lower alkenyl,

~~heterocyclic,~~

~~(heterocyclic)alkyl),~~

~~arylthioalkyl,~~

~~arylsulfonylalkyl,~~
~~(heterocyclic)thioalkyl,~~
~~(heterocyclic)sulfonylalkyl~~
~~(heterocyclic)oxyalkyl~~
~~arylalkoxyalkyl,~~
~~arylthioalkoxyalkyl,~~
~~arylalkylsulfonylalkyl~~
~~(heterocyclic)alkoxyalkyl,~~
~~(heterocyclic)thioalkoxyalkyl~~
~~(heterocyclic)alkylsulfonylalkyl~~
~~cycloalkyloxyalkyl,~~
~~cycloalkylthioalkyl,~~
~~cycloalkylsulfonylalkyl,~~
~~cycloalkylalkoxyalkyl,~~
~~cycloalkylthioalkoxyalkyl,~~
~~cycloalkylalkylsulfonylalkyl,~~
~~aminocarbonyl,~~
~~alkylaminocarbonyl,~~
~~dialkylaminocarbonyl,~~
~~aroylalkyl,~~
~~(heterocyclic)carbonylalkyl,~~
~~polyhydroxyalkyl,~~
~~aminocarbonylalkyl,~~
~~dialkylaminocarbonylalkyl,~~
~~aryloxyalkyl, or~~

~~alkylsulfonylalkyl,~~
~~wherein heterocyclic is pyridyl, thiazolyl,~~
~~isothiazolyl, oxazolyl, isoxazolyl, furanyl, thienyl,~~
~~tetrahydrofuranyl, tetrahydrothienyl, and tetrahydro[2H]pyranyl~~
~~and wherein the heterocycle is unsubstituted or substituted with~~
~~one to three substituents independently selected from hydroxy,~~
~~halo, amino, alkylamino, dialkylamino, alkoxy, polyalkoxy,~~
~~haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, arylalkyl, COOH,~~
~~SO₃H, lower alkenyl or lower alkyl;~~

where X is -N, or -O, with the proviso that when X is O, R_B is absent;

and when X is N,

R_B is:

[I] -C₁-C₁₀ alkyl optionally substituted with one, two or three substituents selected from the group consisting of C₁-C₃ alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C≡N, CF₃, C₁-C₆ alkoxy, -O-phenyl, -NR_{1-a}R_{1-b} where R_{1-a} and R_{1-b} are as defined above, -OC(=O)NR_{1-a}R_{1-b} where R_{1-a} and R_{1-b} are as defined above, -S(=O)₀₋₂R_{1-a} where R_{1-a} is as defined above, -NR_{1-a}C(=O)NR_{1-a}R_{1-b} where R_{1-a} and R_{1-b} are as defined above, -C(=O)NR_{1-a}R_{1-b} where R_{1-a} and R_{1-b} are as defined above, and S(=O)₂NR_{1-a}R_{1-b} where R_{1-a} and R_{1-b} are as defined above,

(II) -(CH₂)₀₋₃-(C₃-C₈) cycloalkyl where cycloalkyl can be optionally substituted with one, two or three substituents

selected from the group consisting of C₁-C₃ alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C≡N, -CF₃, C₁-C₆ alkoxy, -O-phenyl, -CO-OH, -CO-O-(C₁-C₄ alkyl), and NR_{1-a}R_{1-b}; where ~~R_{1-a}~~ and ~~R_{1-b}~~ are as defined above.

~~(III) (CR_{B-x}R_{B-y})₀₋₄R_{B-aryl} where R_{B-x} and R_{B-y} are~~

~~(A) H,~~

~~(B) C₁-C₄ alkyl optionally substituted with one or two OH,~~

~~(C) C₁-C₄ alkoxy optionally substituted with one, two or three of F,~~

~~(D) (CH₂)₀₋₄C₃-C₇ cycloalkyl,~~

~~(E) C₂-C₆ alkenyl containing one or two double bonds,~~

~~(F) C₂-C₆ alkynyl containing one or two triple bonds, or~~

~~(G) phenyl,~~

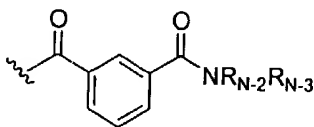
~~and where R_{B-x} and R_{B-y} are taken together with the carbon to which they are attached to form a carbocycle of three, four, five, six or seven carbon atoms, optionally where one carbon atom is replaced by a heteroatom selected from the group consisting of O, S, SO₂, and NR_{N-2} where R_{N-2} is as defined above, and R_{B-aryl} is the same as R_{N-aryl} and is defined above~~

~~(IV) CH(R_{B-aryl})₂ where R_{B-aryl} are the same or different and are as defined above,~~

~~(V) cyclopentyl, cyclohexyl, or cycloheptyl ring fused to R_B -aryl or R_B -heteroaryl or R_B -heterocycle where R_B -aryl or R_B -heteroaryl or R_B -heterocycle are as defined above where one carbon of cyclopentyl, cyclohexyl, or cycloheptyl is optionally replaced with NH, NR_{N-5} , O, or $S(=O)_{0-2}$, and where cyclopentyl, cyclohexyl, or cycloheptyl can be optionally substituted with one or two C_1-C_3 -alkyl, F, OH, SH, $C\equiv N$, CF_3 , C_1-C_6 -alkoxy, =O, and $NR_{1-a}R_{1-b}$ where R_{1-a} and R_{1-b} are as defined above,~~

~~(VI) or -H.~~

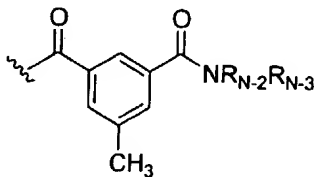
²⁶
~~149.~~ (New) A compound according to claim ⁹~~11~~, wherein



R_N is of the formula

²⁷
~~150.~~ (New) A compound according to claim ²⁶~~149~~, wherein R_{N-2} and R_{N-3} are both C_3 alkyl.

²⁸
~~151.~~ (New) A compound according to claim ¹¹~~13~~, wherein



R_N is of the formula

²⁹
~~152.~~ (New) A compound according to claim ²⁸~~151~~, wherein

R_{N-2} and R_{N-3} are both C_3 alkyl.

³⁰
~~153~~. (New) A compound according to claim ¹⁹~~28~~, wherein
 R_1 is benzyl, wherein the phenyl portion is optionally
substituted with 1 or 2 groups that are F, Cl, C_1 - C_4 alkoxy,
 CF_3 , C_1 - C_4 alkyl optionally substituted with one substituent
selected from the group consisting of C_1 - C_3 alkyl, -F, -Cl,
-Br, -OH, $-C\equiv N$, $-CF_3$, C_1 - C_3 alkoxy, and $-NR_{1-a}R_{1-b}$ where R_{1-a}
and R_{1-b} -H or C_1 - C_4 alkyl,

R_2 is -H;

R_3 is -H;

R_N is $R_{N-1}-X_N-$ where X_N is $-CO-$, and R_{N-1} is phenyl substituted
with one, two or three of the following substituents
which can be the same or different and are C_1 - C_4 alkyl,
-OH, $-NO_2$, -F, -Cl, -Br, or -I, $-CO-OH$, $-C\equiv N$, $-(CH_2)_{0-4}-$
 $CO-NR_{N-2}R_{N-3}$, where

R_{N-2} and R_{N-3} are the same or different and are selected
from the group consisting of H, and $-C_1$ - C_6 alkyl
optionally substituted with one substituent
selected from -OH, and $-NH_2$, $-C_1$ - C_6 alkyl
optionally substituted with one to three -F, -Cl,
-Br, or -I, $-C_3$ - C_7 cycloalkyl, $-(C_1$ - C_2 alkyl)-(C_3 - C_7
cycloalkyl), and $-(C_1$ - C_4 alkyl)-O-(C_1 - C_3 alkyl).

31
154. (New) A compound according to claim 153, wherein
30
 R_A is $-(CR_{A-x}R_{A-y})_{0-4}-R_{A-aryl}$, or $-C=OR_7$, where
 R_{A-aryl} is phenyl, 1-naphthyl, or 2-naphthyl, substituted
with one, two or three of the following substituents
which can be the same or different and are C_1-C_4 alkyl
optionally substituted with one or two substituents
selected from the group consisting of C_1-C_3 alkyl, $-F$,
 $-Cl$, $-Br$, $-I$, $-OH$, $-SH$, $-C\equiv N$, $-CF_3$, C_1-C_3 alkoxy, and
 $-NR_{1-a}R_{1-b}$, $-OH$, $-NO_2$, $-F$, $-Cl$, $-Br$, or $-I$, $-CO-OH$, $-C\equiv N$,
 $-(CH_2)_{0-4}-CO-NR_{N-2}R_{N-3}$, $-(CH_2)_{0-4}-SO_2-NR_{N-2}R_{N-3}$, $-(CH_2)_{0-4}-SO-$
 $(C_1-C_6 \text{ alkyl})$, $-(CH_2)_{0-4}-SO_2-(C_1-C_6 \text{ alkyl})$, $-(CH_2)_{0-4}-SO_2-$
 $(C_3-C_7 \text{ cycloalkyl})$, $-(CH_2)_{0-4}-O-(C_1-C_6 \text{ alkyl})$ optionally
substituted with one, two, three, four, or five $-F$,
 C_3-C_7 cycloalkyl, or $-(CH_2)_{0-4}-C_3-C_7$ cycloalkyl, where
 R_{N-2} and R_{N-3} are the same or different and are selected
from the group consisting of H , and $-C_1-C_6$ alkyl;
 R_7 is $C_1 - C_6$ alkyl;
 R_{A-x} and R_{A-y} are $-H$, C_1-C_4 alkyl, or phenyl.

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155. (New) A compound according to claim 154, wherein
31
 R_1 is benzyl, wherein the phenyl portion is substituted with 1 or
2 groups that are F , Cl , C_1-C_4 alkoxy, CF_3 , or C_1-C_4 alkyl;
 R_{A-aryl} is phenyl substituted with one or two of the following
substituents C_1-C_4 alkyl, optionally substituted with

one or two substituents selected from the group consisting of C₁-C₃ alkyl, -OH, -NO₂, -F, -Cl, -Br, or -I, -CO-OH, -C≡N, -(CH₂)₀₋₄-CO-NR_{N-2}R_{N-3}, and -(CH₂)₀₋₄-O-(C₁-C₆ alkyl optionally substituted with one, two, three, four, or five -F, where R_{N-2} and R_{N-3} are the same or different and are selected from the group consisting of H, and -C₁-C₆ alkyl.

³³
~~156~~. (New) A substituted amine according to claim ³²~~155~~ where R_N is -C(O)-phenyl, wherein the phenyl is substituted with one -CO-NR_{N-2}R_{N-3}.

³⁴
~~157~~. (New) A substituted amine according to claim ³³~~156~~ where R_{N-2} and R_{N-3} are independently H or C₁-C₆ alkyl.

³⁵
~~158~~. (New) A compound according to claim ³⁴~~157~~, wherein R_{N-2} and R_{N-3} are both C₃ alkyl.

³⁶
~~159~~. (New) A substituted amine according to claim ³²~~155~~ where R_N is -C(O)-phenyl, wherein the phenyl is substituted with one methyl group and with one -CO-NR_{N-2}R_{N-3}.

³⁷
~~160~~. (New) A substituted amine according to claim ³⁶~~159~~ where R_{N-2} and R_{N-3} are independently H or C₁-C₆ alkyl.

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~~161~~. (New) A compound according to claim ~~160~~, wherein R_{N-2} and R_{N-3} are both C_3 alkyl.

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39

~~162~~. (New) A compound according to claim 4, wherein

R_7 is $C_1 - C_6$ alkyl;

R_1 is benzyl, wherein the phenyl portion is substituted with 1 or 2 groups that are F, Cl, C_1-C_4 alkoxy, CF_3 , or C_1-C_4 alkyl;

and

R_N is $R_{N-1}-X_N-$ where X_N is $-CO-$, and R_{N-1} is phenyl substituted with one, two or three of the following substituents which can be the same or different and are C_1-C_4 alkyl, $-OH$, $-NO_2$, $-F$, $-Cl$, $-Br$, or $-I$, $-CO-OH$, $-C\equiv N$, $-(CH_2)_{0-4}-CO-NR_{N-2}R_{N-3}$, where

R_{N-2} and R_{N-3} are the same or different and are selected from the group consisting of H, and $-C_1-C_6$ alkyl optionally substituted with one substituent selected from $-OH$, and $-NH_2$, $-C_1-C_6$ alkyl optionally substituted with one to three $-F$, $-Cl$, $-Br$, or $-I$, $-C_3-C_7$ cycloalkyl, $-(C_1-C_2 \text{ alkyl})-(C_3-C_7 \text{ cycloalkyl})$, and $-(C_1-C_4 \text{ alkyl})-O-(C_1-C_3 \text{ alkyl})$.

40

39

~~163~~. (New) A compound according to claim ~~162~~, wherein

R_N is $-C(O)$ -phenyl, wherein the phenyl is substituted with one

$-CO-NR_{N-2}R_{N-3}$.

41

40

~~164~~. (New) A substituted amine according to claim ~~163~~ where R_{N-2} and R_{N-3} are independently H or C_1-C_6 alkyl.

42

41

~~165~~. (New) A compound according to claim ~~164~~, wherein R_{N-2} and R_{N-3} are both C_3 alkyl.

43

39

~~166~~. (New) A substituted amine according to claim ~~162~~ where R_N is $-C(O)$ -phenyl, wherein the phenyl is substituted with one methyl group and with one $-CO-NR_{N-2}R_{N-3}$.

44

43

~~167~~. (New) A substituted amine according to claim ~~166~~ where R_{N-2} and R_{N-3} are independently H or C_1-C_6 alkyl.

45

44

~~168~~. (New) A compound according to claim ~~167~~, wherein R_{N-2} and R_{N-3} are both C_3 alkyl.